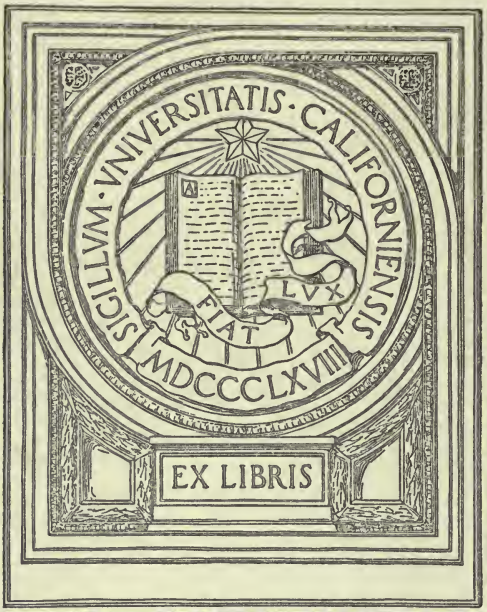
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SPEECH

OF

DR. CHARLES KNOWLTON,

IN SUPPORT OF

MATERIALISM,

AGAINST THE ARGUMENT OF

ORIGEN BACHELER,

THE GREAT GOLIAH,

AND

CchampION OF THE CROSS,

IN 1836.

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PHILADELPHIA:

1838.

THE OPENING SPEECH

BY DR. KNOWLTON.

Respected Auditors:

If I were ever startled at my own presumption—and certainly I have frequently had occasion to be,—it is now. A little mountain David, unexpectedly called from the charge of his diseased flock to meet the great Goliah of the Cross; and to accept of this call, is certainly one of the most presumptuous acts of sober life.

It is, I believe, the general opinion of the Free Enquirers within the United States, that the Christian ranks cannot furnish a more ingenious, a more ready practised advocate, than him with whom I have the honor to debate on this occasion. Theological disputation, either in the editorial chair, upon the rostrum, or within the desk, has long been his chosen avocation. But for my myself, I am far indeed from being accustomed to public speaking; nor did I ever publicly DEBATE with any one.

A man may be a close thinker, and as he leisurely sits in his office, secluded from the world, he may be able to express his thoughts on paper; but all this is no evidence of a talent for public debate.

It will be readily admitted that truth in its general effects is better than error; and that whatever a man *believes*, is *truth with him*, whether it be real truth or not; consequently we ought to look upon every man's efforts to promulgate his opinions, as evidence of good will to mankind.

Without occupying time in pointing out those circumstances which you must all readily see operate in favor of my opponent, and to my disadvantage; or in making further apologies for having consented to meet him; I proceed to the question which we have mutually agreed to discuss, namely:—

Is there any being or agent in existence that is not material?

My opponent takes the affirmative side of this question, and of course, to make out his case, he must prove that there is such a being in existence, and all the task I have to perform, is to prevent his doing so. The negative side of the question is made out to begin with; for it is certain that we have no real knowledge of any such being, inasmuch as no such being has ever made any perceptible impression upon any of our senses. You see, then, at once, that the burden of proof lies with my antagonist. It is like this:—Suppose a man asserts that in some mountain—the location of which he does not himself even pretend to know—a tremendous great animal exists; then, of course, it belongs to him to prove it, so he advances his arguments. Now, his arguments are not such

as to cause me to believe that his great animal exists; but am I on this account bound to prove there is no such animal?—am I to prove that the earth is solid, because Capt. Symmes fails to convince me it is hollow? By no means. All I have to do is to show the weakness of the arguments adduced. It is none of my business, with pick-axe and crowbar, to dig to the earth's centre to prove the negative of Capt. Symmes's hypotheses and dreams. Here, then, it would seem, that I might sit down and rest until my opponent has *apparently* made out his case.—But you believe, and from your cradles you have believed, that *his* case is already made out; so there is yet work enough for me to do.

To eradicate what I conceive to be the deep rooted errors which have been early, repeatedly, and most industriously impressed upon our sentient parts, and at the same time to remove some of the sandy foundations upon which my opponent would otherwise erect some of his arguments, I shall now present you with an outline—a mere skeleton (for time will not admit of more) of my system of metaphysics.

Permit me, however, to remark, before I proceed further, that I shall not aim at eloquence. I wish to *reason* with you. And I wish you to feel that *truth* and not victory is my object, and ought to be your object. Any appeals to you on this occasion in relation to the *consequences* of of any opinions whatever, would, be quite out of place. We take it for granted that truth is better than error; and it is more than a day's work to decide, beyond dispute, on which side of our question the truth lies. Were it not begging the question, and were it inconsistent with the object of our meeting, to moralize on the consequences of opinions, I might go on to state the overwhelming amount of misery that has arisen from the doctrine of spiritualism; while my opponent or opponents might be equally eloquent in portraying the consequences which they imagine will arise from materialism when it becomes prevalent. But no such boy's play can be admitted. We meet as philosophers, not as sectarian zealots. No dictation, no aristocracy of mind, is this day to be exercised;—we meet on the democratic principle of equality, I have yet to request you not to hesitate to admit any position which I may advance, unless you can give some other reason for not admitting it than that an —— than that *I* advanced it.

Nothing is more clear than that every real substance or being must be of *some* extent; and it is equally self-evident that extent without resistance, impenetrability, or solidity, (I prefer the latter term,) cannot be any anything but *empty space;*—which is but another term for *nothing*. Matter, then, is *solid extent*, or solid space. All persons will readily admit, that whatever is extended and solid—though destitute of all other properties—is matter. I therefore call extension and solidity the *essential* properties of matter; at the same time admitting that *all* kinds of matter possess other properties, such as attraction, mobility, indestructibility, &c. all of which, together with the essential, constitute the *general* properties of matter. Although we speak of the properties of matter (instead of material properties) just as we do of the students *of a college*, and just as if matter itself were one thing, and its properties something else; yet, in fact, matter is but a combination of properties. Take away extension,

solidity, attraction, and all other properties, and it is impossible even to imagine that anything would remain.

Now to me it is utterly impossible to conceive, nor can I see the least reason to suppose, that there is, or can be, any being or entity—anything that can act or do anything, that is not material, that is, composed of matter. Air is matter, light, caloric, the electric fluid, odors, vapors, &c., are all material. It is true that as *bodies* they are not solid; but the ultimate atoms of which they are composed must be something or nothing, and if something they must be solid, and if solid, they must be of some extent, for it is self-evident that there can be no solidity without extension.

It is as human beings that we say a thing is or is not; and to all human understanding there is not—*there cannot be*,—any spiritual beings in the modern sense of the word spirit. By spiritual being is now meaned an immaterial being, but language cannot express a greater absurdity than an *immaterial being*. For by immaterial is meaned that which has not the essential properties of matter. Now the essential properties of matter are at least two, namely, extension and solidity; and a moment's close thought, must inevitably, and forever satisfy you, that there cannot be solidity without extension, and that extension without solidity is the empty space, which is but another term for nothing. I do beseech you, if you regard your own peace—if you would have your opinions founded on a rock, and not to be shaken by the many windy doctrines, to reflect closely and repeatedly on the subject now before us. I wish you to think closely, and see if it be not as difficult to admit that a real being exists without extension, without solidity, *without parts*, as it is to admit that the half of a thing is as much as the whole of it. Do I go too far, then, when I assert that there cannot be any real being that is not material? Does it belong to me to prove what is entirely self-evident; or does it rather belong to him to prove the contrary who has the temerity to assert to the contrary?

Here, again, it would seem that I ought to sit down and wait—and *wait forever*, for my opponent to prove the glaring absurdity that nothing is something. But, my hearers, he will not attempt to prove any such thing—he will not stick to his text—he will not make out his case—he will give it up. All he can dream of doing—all he can reasonably attempt to do, is to throw dust in your eyes! He will speak of the existence of matter; of its various combinations and movements; of supposed indications of design; of the order in which events occur, &c. And finally tell you that notwithstanding all I have *yet* said, there must be *something* existing prior to, and independent of, matter. If I asked how this *can* be, he may perhaps put us off in the old way, by exclaiming,—"Oh, it is one of the mysteries of godliness."

I shall therefore pursue my system of metaphysics, and in doing so I shall speak of, and explain, or inform you how materialists do explain, many things which have led men in dark ages, to suppose the existence of unearthly things, to which they gave the name of *deity, soul, ghost*, &c.

Having already defined matter, I come now to speak of its existence.

There is no reason, as I conceive, why *solid space* may not have always existed, as well as empty space. Indeed, with me, it is more con-

ceivable, more rational, to say that the existence of matter is natural, necessary, and eternal, like empty space, and somewhat like duration, and of course never was caused to exist, than is to say it was made out of nothing by any being whatever. This idea of the eternal existence of matter is new to many; and for this reason, more than for any other, they are not quite at ease, and perfectly satisfied with it—I speak from what I once experienced.—But how will such get rid of the difficulty? Will they suppose the existence of a being who caused matter to exist? Must not the maker of a thing be superior to the thing made, if matter must needs have had a maker? Indeed, is it not even easier to to admit that an inferior being or thing came into existence without cause, than to admit that a superior did so? Or, will it be said that the supposed maker of matter has existed always? If we say this, then so far from removing the difficulty, we only shift it to new shoulders; and therefore the supposition of a maker is not merely a hypothesis, but a groundless hypothesis. For in all cases in which something unknown is supposed or imagined to account for something that is known, such supposition is called a hypothesis; and if it does not remove one or more difficulties without giving rise to others equally as great, with one accord it is pronounced a groundless hypothesis. I admit that we can form no conception of that which is *altogether* different from any thing that has ever acted upon either of our five senses; and hence we can form no conception of the eternal existence of matter; but we can also form no conception of the eternal existence of a something else called God. And further, we cannot conceive how this impossible, this unimaginable something else, admitting its existence, could make or create matter of nothing. Dr. Good, that most learned and cunning writer, who whipped materialism with straw to please Christians, tells us that it was a doctrine of all the schools of ancient Greece and Rome, that matter could not have arisen or been caused to arise out of nothing, and also that it never can be annihilated or reduced to nothing.—Palmer says, "It is among the philosophical truths which cannot be controverted, that nothing can never become something, and that something can never become nothing; and that Christian philosophers themselves have acceded to the axiom, that from nothing, nothing can be made." This idea of matter out of nothing, originated, so far as I can learn, with a small and ignorant tribe, and as for its being received by a fourth part of the human family, it never was, and doubtless never will be. Again, admitting the world was made about six thousand years ago, by an eternal creator, how long must this creator have remained in idleness, in darkness, and alone, before he undertook the easy task of only six day's labor? It appears then, that as to the mere existence of matter, more difficulties attend the hypothesis of its being created, than what attend the idea of its eternal existence.

From the supposition—or, if it did not appear too much like begging the question, I would say from the *demonstrated fact*, that there is nothing in existence but matter, it follows—I say from this *supposition* it follows, that all the phenomena of nature—all events, all effects, even the thoughts and feelings of man, are but actions or changes of matter.

Now all these changes take place in a certain invariable order; that is,

the same changes which follow certain other changes at one time, *always* follow these certain other changes, under the same circumstances. That which under certain circumstances gives rise to—that is, followed by, heat, or cold, or vegetables, or animals, thoughts, earthquakes, or any other movements, always gives rise to the same thing under the same circumstances.—Herein—simply herein, lies all that wonderful *order* that has been brought forward as evidence of a God; and hence it is, also, that we come to have the words Power, Cause, and Effect.

There is nothing in the least degree mysterious (unless everything is mysterious) about cause and effect. It is only because we see that the change A, for instance, is always followed by the change B, under certain circumstances, that we say A, is the cause of the change B, and B, the effect of such cause. A cause is an antecedent change; an effect is a subsequent change.

The word *power* signifies nothing distinct from matter any more than the word *form*. "The form of bodies," says Brown, "is the relation of their elements to each other, in *space*. The power of bodies is their relation to each other *in time*." The body or substance which *first* acts is said to have the power, and the one that acts immediately after is said to be put in action by such power.

Behold then a universe of matter, the changes of which constitute the whole phenomena of nature. Now, to explain these phenomena, is but to point out hidden changes which take place between known changes, and the order in which these hidden changes occur. But when one change *immediately* follows another there are no intervening changes to be pointed out—nothing to explain. Of course when one change is known to immediately follow another, it is altogether unphilosophical to ask why or how the first change gives rise to the second, for there is no *why* or *how* about it—only it is so because it is so. We *discover* simple, ultimate, and universal facts, or 'laws of nature,' as they are called, but it is quite a misuse of language to say we *explain* them. Who but a simpleton will ask why bodies communicate motion by impulse, why water is wet, why fire is hot, or why the rays of the sun are light? And who but a simpleton will ask why the changes of matter take place in the *order* in which they do? In reply to such a question, I would just ask why they should take place otherwise, admitting there is no overruling Providence! Surely, no weighty argument for the existence of a God can be drawn from the 'order of nature,' that is, from the order in which events occur, until some possible reason can be given, why there would not be this same order if there were no such being.

But the indications of design. Here is the pith of all argument for a superior intelligent being.—Let us reason. To me these seeming indications are more manifest in the organization of animals than in anything else of which I have knowledge. For instance, the eye sees and the ear hears: now from what we know of the structure of these organs, and from what we know of light and sound, we are sure that if this structure had been essentially different (light and sound remaining the same) the one would not have seen nor the other heard.—Hence the conclusion is too hastily drawn by many that the eye was *designed* to see and the ear to hear. But supposing the fingers saw and the nose heard,

and ever had done so, so far back as any knowledge of man extends, while the eye only added expression and beauty to the features, and the ears only served as a convenient part to be pinched and boxed by the schoolmaster;—what should we say then? Should we not admire the wisdom discoverable in the construction of the fingers and nose? Should we not exclaim, how admirabiy they are fitted for the performance of their functions? So much so, indeed, that they always have, and always will, perform, these their functions of seeing and hearing without any failure, except when injured by disease or accident! I think we should. Again, supposing that sometimes the eye saw, sometimes the nose, the ancles, the fingers, and so on; and then again, sometimes the eyes, the feet, shoulders, &c. heard, tasted, smelt—in short, supposing that sometimes one organ did one thing, and sometimes another, without the least order or regularity, should we then be heard to say the eye was *designed* to see, the ear to hear, &c.? And suppose there were the same irregularity throughout all nature, should we think—though the *form* of everything should be as it now is—that there was any design about any part of it? Surely not. We see then, that after all, it is not mechanism, not structure, but *constant conjunction* between means and ends, or organs and functions, that causes us to say that such organs were *designed* to perform such and such offices and functions. But does this constant conjunction prove a designer?—Who can bring the least evidence to prove? or assign the least plausible reason why, there would not be this same constant conjunction, if there were not or is not a designing creator, Why should not the eye see, but not hear, to-morrow, next day, and so on, for months, years, and generations; and why should not all things always under the same circumstances, do as they have once done, though they were never formed, and are not at present influenced, by any designing being? It seems to me that all bodies act according to their own inherent natures or properties; and so far from requiring anything supermaterial to cause them to act in the same uniform order in which they do, such a power would be necessary to cause them to act otherwise, The fact is, let any undesigning thing—for instance, let a volcanic eruption shoot a new world into existence; let the things of this new world be ever so discommodious; let the animals be the most unhappily constructed you can imagine; still if any of them could think as we do, and if there were the same constant conjunction between means and ends—the same unvarying series of causes and effects, the inhabitants of this new world would soon be talking about the marks of design—the admirable adaptation of means to ends, discoverable in the things around them; and yet, as by supposition, there should have been no design about it.

With respect to the existence of matter, the organization of animals, &c., man is continually attempting to reason from analogy, when in fact there is no analogy to reason from. Man never made or created anything. To build a house or to construct a watch, is but to change the forms of matter: and there is no kind of analogy—no resemblance between this changing of matter, and the creation of matter out of nothing—admitting matter was ever created. Because a house must have had a builder, it by no means follows that matter must have had a maker. Nor can I see any analogy between the construction of a watch, for in-

stance, and the growing of an eye. In the case of the watch, the several parts are first made separately, and then put together; but the eye *grows*, and even in its own parts, its own vessels, assist in the progress of its growth.

In my endeavor to anticipate my opponent in all arguments—to preoccuyy and devastate the grounds upon which he is expecting to erect forts, I come now to enquire into the origin of man, a subject that will demand your profoundest attention; and not a little patience.

It is well known that as fire gives rise to fire where combustibles and other necessary circumstances are present, so does organization give rise to organization under the required circumstances.—But the most difficult question is, by what means, or in what way, were the *first* organized beings produced? I take it for granted that there has been a time when there was no man upon earth, and proceed to enquire how he first came into existence.

Chemistry has shown that nature consists of about fifty simple or elementary substances; and that every thing which acts upon one or more of our senses, consists, either of one of these substauces, or of two or more of them combined.

Now it suits me to look upon all these elements in their simple, uncombined state, and say that all the properties which they possess *in this state*, constitute the *primary* properties of matter. Consequently the primary properties include the essential and the general properties, of which I have before spoken, and also properties that are peculiar to individual elements. We must admit that different elements possess different properties, else they would not be different elements; and a combination of them would not produce a new substance, differing from either of the elements so combined, in any other respect than quantity. The *secondary* properties of matter result from combinations, and we shall soon be prepared to speak of them.

In my work entitled Modern Materialism, I have shown that matter unites with matter in three essentially different ways—mechanically, chemically, and organically; that each mode of union gives rise to a class of properties peculiar to itself, and essentially different from the properties that arise from either of the other modes of union; that each kind of union requires the existence of its own peculiar set of circumstances, in order that it may take place. In short, that we have just as good reasons, and analagous reasons, for saying that matter is endowed with *organic*, *physiological*, or *vital* properties, as we have for saying it is endowed with chemical properties.

In most instances in which different kinds of matter unite, properties arise that did not exist in either of the separate ingredients. For present illustration, I will regard solutions as mere mechanical mixtures, and say that *viscidity* arises from the physical, that is mechanical, union of water and a hard fragile substance called gum; *acidity* arises from the chemical union of sulphur and the elements of water; *contractility* and *sensibility* arise from the organic union of the elements of the muscular and nervous systems.

All those properties which arise from whichsoever kind of union I call the *secondary* properties of matter.

What are the secondary properties of matter?—Are they realities, in precisely the same sense that the primary properties are realities, or are they only what we ascribe to matter because it suffers or produces certain changes under certain circumstances? Surely, we cannot for a moment suppose that combination gives rise to something *more*, but only to something *different*. When we say the chemical union of sulphur and the elements of water gives rise to acidity (the new body thus formed being called *oil of vitriol*,) we say so because the oil of vitriol changes blue vegetable colors to red, unites and neutralizes the alkalies, excites a peculiar sensation in the mouth, &c., which neither of its separate ingredients would do; and not because we suppose there is anything more in existence than before the union. It is just so with all other secondary properties, whether physical, chemical or organic. No kind of union *creates* anything —but only this; new forms of matter act and are acted upon in new ways—as it is very reasonable to suppose they should—they exhibit new phenomena; and therefore *we* give them new properties, and to these properties we give names.

Now we have just as good reason, and as many reasons, for saying that matter possesses the property of attraction, of color, acidity, or any other property whatever. The fact that matter does unite organically is positive proof that it has the property of doing so, and this property is what I mean by the organizing property of matter. Different names may be given to it; it may be called the "*moving and generative principle*," of Aristotle; the "*Archeus*,' of Van Helmont; the "*Soul*," of Stahl; the "*vegetation force*," of Needham and Buffon; the "*nisus formativus*," of Blumenbach, and so on; but it is impossible to deny to matter this property, under some name or other, without disregarding the fundamental principles of all reasoning, and making perpendicular fools of ourselves. To say that something out of matter causes it to organize, would be just so absurd—just such kind of nonsense and folly—as to say that it is not the acidity of the oil of vitriol that causes your tongue to smart when you taste of it—oh, no, it is a mysterious unknown something, existing out of the oil of vitriol, *who* happens to bite your tongue at that instant!!

As the property of attraction,—or more particularly, that mode of it called chemical affinity,—is essential to chemical union, so is the organizing property essential to organic motion. But the *laws* of the organizing property of matter,—that is, the *general facts* relating to this property, are not yet so well understood as the laws of attraction: And this, for the very good reason, that the most important branches of the noble science of organology have been, in a lamentable degree, interdicted by theology. Little was the progress made in the study of the laws of attraction, while the learned men of the world were in search of the "philosopher's stone," or a substance to convert baser metals into silver and gold. And when we consider that even now, the almost universal attention of mankind is directed to another Jack-o'-lantern,—a happy place to live in after they are dead,—it is not at all surprising that but little progress has as yet been made in discovering the laws of organic union.

The organizing property of matter, like all other material properties,

manifests itself under proper circumstances—that is, the very circumstances under which it does manifest itself. It does so by giving rise to organization; and it has filled earth, air and water, with myriads of organized beings.

I do not suppose that it can properly be said that any, or all, of the elements of nature possess the organizing property of matter in *their simple, uncombined state*, any more than it can be said that in this uncombined state they possess the property of acidity, sensibility, intelligence, and many other properties that might be named; but certain combinations of them give rise to, and possess this property. Caloric and the elements of water seem to be essential ingredients in such combinations. It is a common saying that heat and moisture necessary for vegetation and animalization,—both of which are modes of organization. We know that in hot weather, moschetoes and other insects arise from stagnant pools, the waters of which are loaded with the principles of decayed vegetables. Some will have it that these moschetoes arise from eggs, deposited by other moschetoes; but they can prove no such thing, they can find no such eggs. They suppose their existence from necessity; they suppose them because they see that if they do not suppose them, the very foundations of religion would be ripped up. But there are even harder cases than moschetoes to get along with. Those who most kindly take *may-be's* for proof will admit, that these animals *may* arise from eggs; but come to intestinal worms, it requires a most accommodating, a most extravagant degree of credulity, to admit that they thus originate.

The learned Bostock, a very popular writer,—of course, he must be a religionist,—tells us that the belief in spontaneous generation was at one period almost universally prevalent; that the proofs of this opinion were supposed to be both numerous and palpable; that about the conclusion of the 17th, and the earlier part of the 18th century, many experiments, in which the Italian naturalists took the lead, were made to disprove this doctrine; but that there are still *many* individual instances which we cannot account for in any way. The worms which prey upon the mouldering corpse are probably one of these instances. He further says that the argument against spontaneous generation is merely analogical, and can be of but little avail when put in competition with positive facts. All this Bostock admits, and yet he is very far from advocating the doctrine of spontaneous generation.

I can see nothing but the all-controlling influence of our religious institutions, that has prevented this doctrine of spontaneous generation from being as prevalent now as it ever was. It might have originated in religious times,—for, now and then, philosophic truths will come, in spite of the church,—but its tendency to sap the foundations of religion not being immediately seen and regarded, it became "almost universal."

I adopt the idea of the spontaneous origination of man, not because it is all perfectly clear, and entirely satisfactory,—not because I have any personal interest in the subject, as many have who maintain a different view; but because, after the deepest and most mature reflection I have been able to bestow upon the subject, I find it decidedly more probable, and attended with far less difficulties than any other view.

I do not suppose that nature gave rise to man all at once, but by very

slow degrees. Perhaps his commencement was in the form of an infusory animalculæ, such as you have seen in vinegar, and such as the microscope has recently shown to pervade all fluids, and even solids; and millions of millions of years may have rolled on before he arrived at his present form. Nor do I suppose that nature was so fortunate, so to speak, as to produce man by a series of improvements upon the first animal, or species of animal, that existed. My opinion is, that in all past duration, millions of differently organized beings have existed, the like unto which there are none in existence now. The question has been asked, What if man had been made to go upon all fours, or with his feet upon his shoulders? I will tell you what would have happened long ago,—his race would have become extinct. If such an *animal* (for man it could not be) could barely procure sustenance while unmolested, it could not cope with the more fortunate organizations. None but the more fortunate organizations long inhabit the earth. To me it is no wonder that among the many millions of organizations to which I suppose nature has given rise, and the greater part of which, perhaps, are now extinct, one of them should *happen* to be as good as that of man. As ten thousand little trees spring up in the woods, but never amount to any thing, so ten thousand different sensitive organizations have sprung up; but the more fortunate ones have overshadowed, overpowered them, and appropriated to their own use the fat of the land.

To this our view of the origin of man, the old threadbare objection will be brought up, that other men are not worked into existence in the same way now-a-days. But this deficiency of decisive proof that man *did* so originate, must not be mistaken for direct evidence that he did *not* so originate. In fact, this objection has but little weight, when we consider, 1st, That more than one six-thousand years (a mere moment compared with all past eternity) may be necessary for the species of animal which will ultimately end in man, to gain one degree,—rise one step in the scale of organization. 2d, That there are now all degrees of organization, and consequently of what is called mind, from man down far below a maggot in cheese. 3d, That many animals have more mind than some men. 4th, That the ourang outang so nearly resembles man, that it is questionable if he ought not to be classed with the human species. 5th, That while other animals are approaching man on the one hand, man is slowly depreciating in age and physical powers, so that his average age is now less than 40 years; and in a million or so, it may get down as low as 12 or 14, when his race would soon become extinct.

Now and then, at distant periods, new animals do appear, and former ones become extinc; but probably new organizations are not springing up so frequently now as at some former period, and principally for the two following reasons:—1st, Because nature has got vent, as it were,—that is, because there are now plenty of vegetables and animals for matter to expend its organizing property upon; or, to word it still plainer, because the several kinds of vegetables and animals that now exist, take to themselves all suitable matter for organization to such a degree as to keep down new organizations, inasmuch as this matter more readily passes into existing organizations, than it gives rise to new ones. 2d, Because the earth is not so near the sun as at some former period. This I

assert, not as an established fact, but as a conclusion to which some philosophers have arrived, and which, if correct, readily accounts for the fact that nature is more prolific at some periods than others, in producing most powerful animals, of which we can now only see the partially preserved skeletons.

The supposition, that a more vivifying influence of the sun than we now enjoy, had much to do in bringing man into existence, is strengthened by the fact that those animals which most resemble man, as the monkey tribes, inhabit warm climates. Our earliest accounts of man also came from such climates.

This view of the origin of man, which I have now advanced, enables us readily to account for the several varieties of the human species, some of which differ more widely from each other than cats and dogs, rendering it extremely difficult to admit that they all descended from one common parent. But, what is vastly more than all this, it avoids a host of insurmountable difficulties which attend the theological account of the matter.

I have spoken of man as if he were fortunately constituted, but I mean only comparatively so, and not by any means that he is what he might have been. He can scarcely fall his length without breaking his neck, while a bug may be thrown a hundred times its length without injury. He is a weak, erring creature, tossed to and fro by his passions, murdering his own species, subject to diseases and accidents; and when from these causes inflammation exists, instead of a pleasurable sensation arising therefrom, as ought to be the case, it is all pain and anguish. As to his enjoyments,—take, for instance, the sense of feeling; there are a hundred points of his surface in which severe pain may be excited, and a hundred means of exciting this pain to one point, and one means of exciting a pleasurable pain. Indeed, I almost wonder how even unthinking nature has so long missed giving rise to a more fortunate animal!

Having spoken of the origin of man, we come now to notice the phenomena which he exhibits. Here I feel myself at home. I have passed the ledges and quagmires; my course is now quite clear, and I could dwell with pleasure, even days, on the subject now before us; but a perfect outline of it is even more than time will permit me to give you. I must, therefore, request you to take my word for it, when I assure you that I shall make no statements but what I feel fully able to maintain; and that I shall not admit any arguments, drawn either from the physical or mental phenomena of man, in favor of an immaterial being or agent existing either in or out of man, to have one feather's weight. I can but believe that I am acquainted with all such arguments; and if I am, time is all I should ask, to show their nullity. I speak in a boastful strain, but, my hearers, you must pardon me. Man, both in a healthy and diseased state, has been the subject of my deepest study for sixteen years; and I shall feel extremely uneasy in believing that you are deceived (not intentionally,) by arguments, the futility of which I shall be unable to show, merely for want of an opportunity.

All the properties, powers, or faculties,—I care not which term you use—that man possesses over and above the inert matter by which he is surrounded, arise by virtue of his organization. The most important of

these properties are contractility and sensibility. Contractility is a property, of the muscular system; and by this system all the physical operations, peculiar to the animal system, are performed. Sensibility is a property of the nervous system; and by this system all conscient mental, or intellectual operations, are performed.

Different parts of the nervous system are organized differently, and hence different materials are required to excite actions in them. Light excites the optic nerve. Air, in such rapid motion as to constitute sound, excites the auditory nerve. Odors excite the olfactory nerves. Flavors excite the gustatory nerves. Various materials excite the nerves of feeling. That kind of action which is excited in the nervous system by impressions upon the senses, I distinguish by the word *conscient.*

A conscient action of a nerve and of the brain, constitute a sensation. A conscient action of the brain alone constitutes a thought or idea. Whenever a conscient action is excited in the brain one or more times, it acquires, by virtue of its organization, such a disposition or tendency to act in the same manner again, that it may so act without the re-application of the impression which originally excited the action. And as different impressions excite different actions, it follows that every experienced brain possesses a vast variety of these tendencies. I call them *sensorial tendencies.* It is by these that we most readily and happily explain all the hitherto mysterious operations of a man's head. They give rise to all our thoughts. They grow stronger by repetition of action. Hence, a man readily thinks what he has frequently thought. By the gradual absorption and re-production of the brain they become weak, unless their strength be kept up by repetition of action; and hence, a man entirely forgets what he has not so much as once thought of for eight or ten years. When the brain is very soft, as in infancy, these tendencies are not easily acquired; hence, we cannot remember our first impressions. When the brain becomes stiff and dry, as it does in old age, these tendencies are not easily acquired,—the person cannot remember the events of yesterday, and is said to be forgetful; but still, tendencies that have been strengthened by repetition of action during a long life, will enable him to remember the events of his youth. The *immaterialists* can account for none of these facts. You say you know a man's name, but you cannot think of it. What do you mean? Why, you mean that your brain possesses a tendency to think his name; but it is so weak, or so much weaker than other tendencies, that it does not become operative, does not give rise to action at the present moment, but it does presently, and this is proof that you had *something* in your brain that gives rise to a thought of his name. This *something* is all I mean by a sensorial tendency. You may give it a better name if you can; but its existence, under some name or other, is certain beyond all dispute. There are two kinds of relation between these tendencies,—*objective* and *timal.* When I say the sensorial tendencies are related, I mean that some of them, in preference to others, become operative together,—that is, give rise to their respective thoughts in close succession. You saw a man's house, and learned his name at the same time, so if, afterwards, an idea of his house comes up, an idea of his name is apt to follow. This is an instance of timal relation. The objects by which we are surrounded are related to each

other in various ways; the sensorial tendencies to which these objects give rise, are, therefore related.

It is the relations between the sensorial tendencies, giving rise to certain ideas in close succession, in preference to others, that have lead the schoolmen to talk about "associated ideas."

It is an ultimate fact or law, that only one sensorial tendency becomes operative at the same identical instant, so our thoughts do not come in clusters, but in trains. But a man may have an idea and a sensation at the same time, thus proving that his thinking part is of some extent. But I am not satisfied that it is so extensive as it would seem it must be, if all the opinions of phrenologists be correct.

The sensorial tendencies constitute a man's knowledge. They constitute his *mind*, a word so interwoven with our language, that it is sometimes convenient to use it, otherwise it might be wholly laid aside. They constitute intelligence, they constitute his *soul*, if this thingless, old-fashioned name, must be still be kept in vogue.

They constitute his *personal identity*. Take away John Brown's sensorial tendencies, and give him mine, and he would think just as I should, if no change had been made. All the world could not make him believe he is not Charles Knowlton, any more than it can now make me believe that I am not myself. To be sure, on looking in a mirror, he would be surprised to see what a change his look had undergone; but still, he would not "give it up."

It is pleasing to me to reflect, how the learned heads of Europe have racked their brains for centuries, in search of personal identity, and that I should be the first to hit upon it. Eight years ago I made and published this remarkable discovery; but being a materialist, no notice has been taken of it. You may smile at what you call my vanity, and all the world may smile, and smile on, until I am in my grave; but I shall die with the satisfaction of knowing what a future generation will think and say.

Although a succession of ideas, single file, essentially constitute all our intellectual operations, yet the schoolmen have made artificial divisions, and invented names, until they have got the subject pretty well darkened, and most gloriously mystified! I will give you an example or two of their proceedings.

A man acquires many sensorial tendencies in relation to a certain subject, which tendencies are of course more or less related to each other. Being afterwards called on for his opinion in regard to this subject, this call sets these sensorial tendencies going, as it were; and, being related, they keep going,—keep giving rise to action or thoughts, *in close succession*, until the man has thought over all he knows in relation to the subject. This thinking over all a man knows in relation to a subject, in *uninterrupted succession*, constitutes judging. The very essence of it, and all wherein it differs from common every-day thinking, consists in the *uninterrupted order*.

But what say the schoolmen, the theologians, the immaterialists? How do they proceed? In the first place, they start with the groundless hypothesis that there is existing in a man's brain, but independent of it, an incomprehensible something, to which they give a name; but how long it

existed before it was lodged in the brain,—by what means it was lodged there, just at the time it should be,—or what prevents it from dodging out of the brain at any time,—are all mysteries, mystery upon mystery. Well, this something thinks, judges, &c.; and the fact that it does judge, is proof, say they, that it has the power or faculty to judge; this faculty must have a name,—they give it that of *judgment.* By this time it has become a real thing, and it must have an office or function to perform; they give it the office of judging; but how does it perform its office? After much perplexing discussion, a Locke, or some other great genius, comes upon the stage, and makes the grand discovery that judgment performs its function by *comparing ideas.*

But, as only one idea exists at a time, I ask how can we compare them? How can we compare what is, with what is not! or, in other words, how can we compare something with nothing?

This, my hearers, is a fair, nay, it is a very favorable sample, of the metaphysics of the immaterialists.

I say, that to have two different ideas occur in immediate connexion, is to be immediately sensible of the difference between them without any comparing, and without any third act,—even for the expression *being sensible* to signify. If we are not thus immediately sensible of the difference between two ideas, then, in fact, they are not two different ideas, but only one idea.

To follow up these errorists, and sweep away the chaotic rubbish, by which they have surrounded and bedimmed the simple operations of the brain, would require a week's continual speaking. A few more remarks, and I will give way.

The brain becomes weary by action like our other organs; and when it is so calmed down that none of the sensorial tendencies give rise to action, the individual is in a profound sleep. Presently, the brain becomes partially recruited,—some of the stronger tendencies then begin to operate, but in an irregular order; this is dreaming. People dream most towards morning.

If these tendencies give rise to actions in this irregular order when all the senses are in an active state,—that is, when we are wide awake,—the individual is crazy.

Sometimes the nerves of the senses, being in a very irritable state, take a conscient action *without impressions;* then we see spectres, ghosts, hear unaccountable noises, experience purely nervous pains in various parts of the body, &c.

It is an ultimate fact, or law of the animal economy, that when certain conscient actions of the brain occur, certain nervous actions arise and extend along down the nerves into the voluntary muscles, causing them to contract, by which contraction our limbs, &c., are put in motion. Cut or compress these nerves, or in any way injure their organization, and the nervous action will not go beyond the injured part, and the man cannot cause the muscles to contract, cannot cause the limb to move, to which these nerves extend.—All these actions, except the muscular contraction, constitute what is called *volition;* and the *whole* of them constitute *voluntary motion.* This operation of the animal economy has given rise to another scholastic term, namely, *will,* one of the most mischievous words in the language of man.

I now sit down to witness the astonishing legerdemain of proving the existence of a real being whioh possosses *no parts!*

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